Lesson 20: How to Create a Sacred Geometry Design

Sacred Geometry amplifies our connection to spirit, and creates harmony within ourselves, and between ourselves and the outside world. It is often called "sacred architecture" because it underlies everything and is woven into the fabric of all creation (source: *destinationdeluxe.com*).

In this lesson, we're going to learn how to create a sacred geometry object. We hope you like this lesson as much as we do.

First, let's *create* a **New Document** to these specifics:

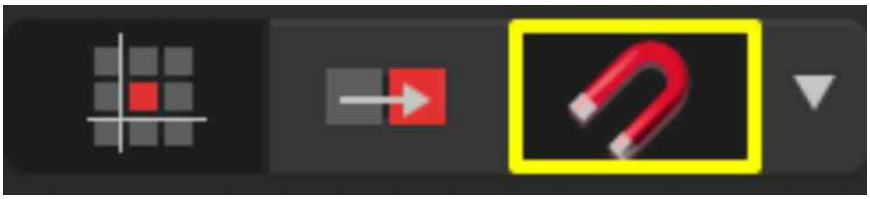
- **Web - CD Cover Digital Release**
- **Transparent background** (*checked*)

Ready to create a cool design?

To begin our design, we're going to make a circle in the center of our document. Make sure Snapping is enabled.

Go to the right side of the **Toolbar** and *click* on the **Snapping** icon (if not already active). We need this active because when we create our shapes, this option will show us crosshair lines to show us where the exact center of our document is.

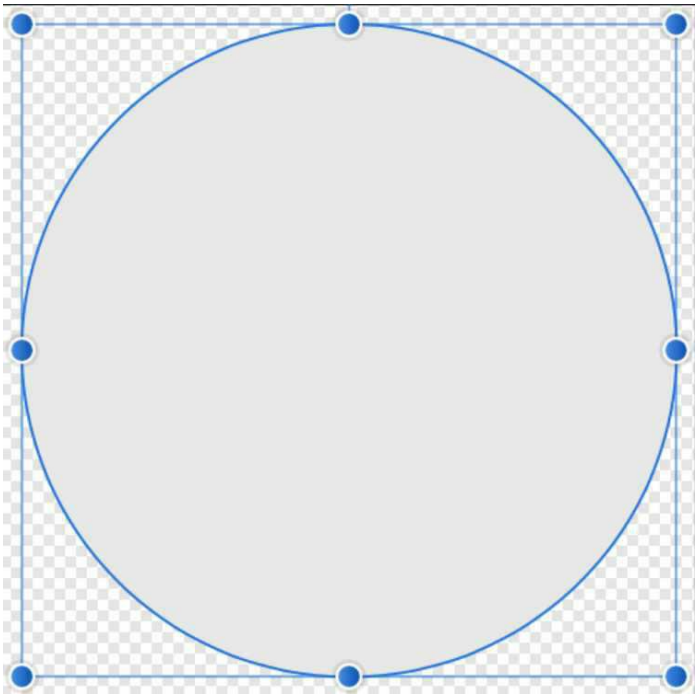
The Snapping icon looks like a red magnet (yellow rectangle).



Select the **Ellipse Tool** and then *place* our **cursor** in the center of our document.

Move your **cursor** to the exact center of the document (you'll see crosshairs that'll let you know you're at the dead center) and then *hold-down* **Ctrl**/**Cmd**+**Shift** and use a *click* & *drag motion* to **draw a perfect circle** from the center of the document.

Make your circle as large as you see in this image below.



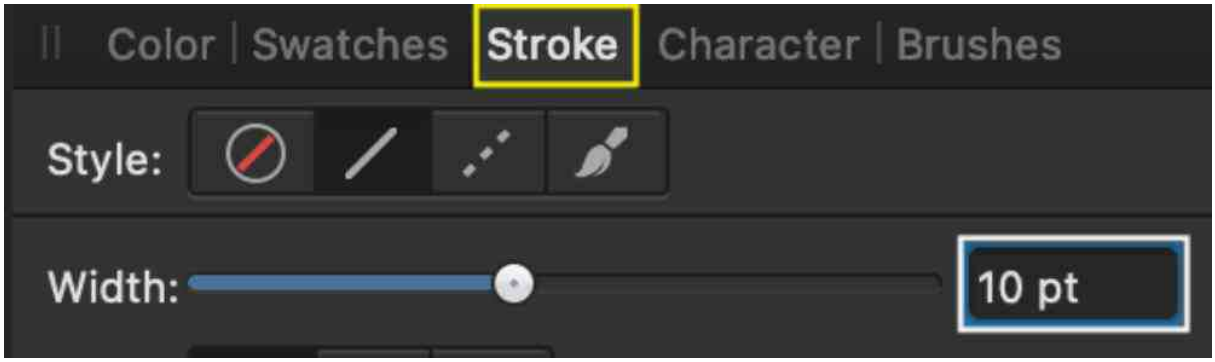
Go to the **Colors Studio** and *click* on the **no color icon** located to the lower left of the Fill circle (see the yellow rectangle in the below image). When you do this, the white Fill of the drawn circle (see above image) will be removed

and replaced with transparency (grey & white checkers). Sorry for the fuzziness of the image. It's a small part of the screen enlarged too much.

Next, we need to increase the Width of the circle's stroke so we can see its form.

Click on the **Stroke Panel** tab (see the yellow rectangle in the below image) and see its pop-out window appear.

Move the **Width slider** so its value box is **10 pt**. You can also *double-click* on the **value box** (see white rectangle in the below image) and *type* in **10**. This is our preferred method because it's faster and more precise.



Next, we're going to place a triangle in the center of this circle. You might think we'd use the Triangle Tool for this, but unfortunately the Triangle Tool doesn't create perfect equilateral triangles (triangles with equal sides). What we need is the Polygon Tool.

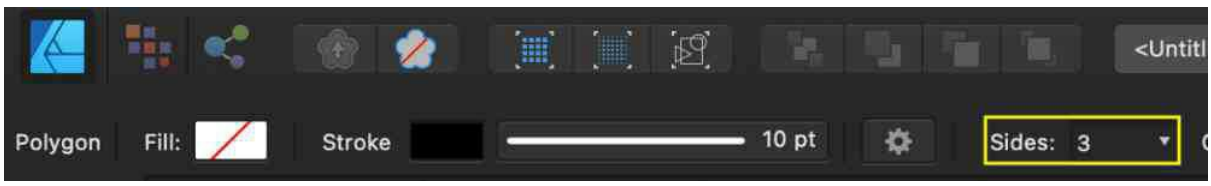
Click on the **Star Tool** & *hold-down* **your mouse button** to *open* the **Tool pop-out window**. You can also *click* on the small grey **Tool Menu** icon (see yellow square) to open this pop-out Tool's window.

Choose the **Polygon Tool**.

Very important side-step: Before you start to work with a new shape, you have to make sure none of the layers in the Layers Panel are selected or highlighted in blue. To do this, all you have to do is either *press* the **Esc key** or *click* on the **canvas** (not the document) and this will deselect any active layers. Now, you can select a new Tool and it its options will appear in its Contextual Toolbar.

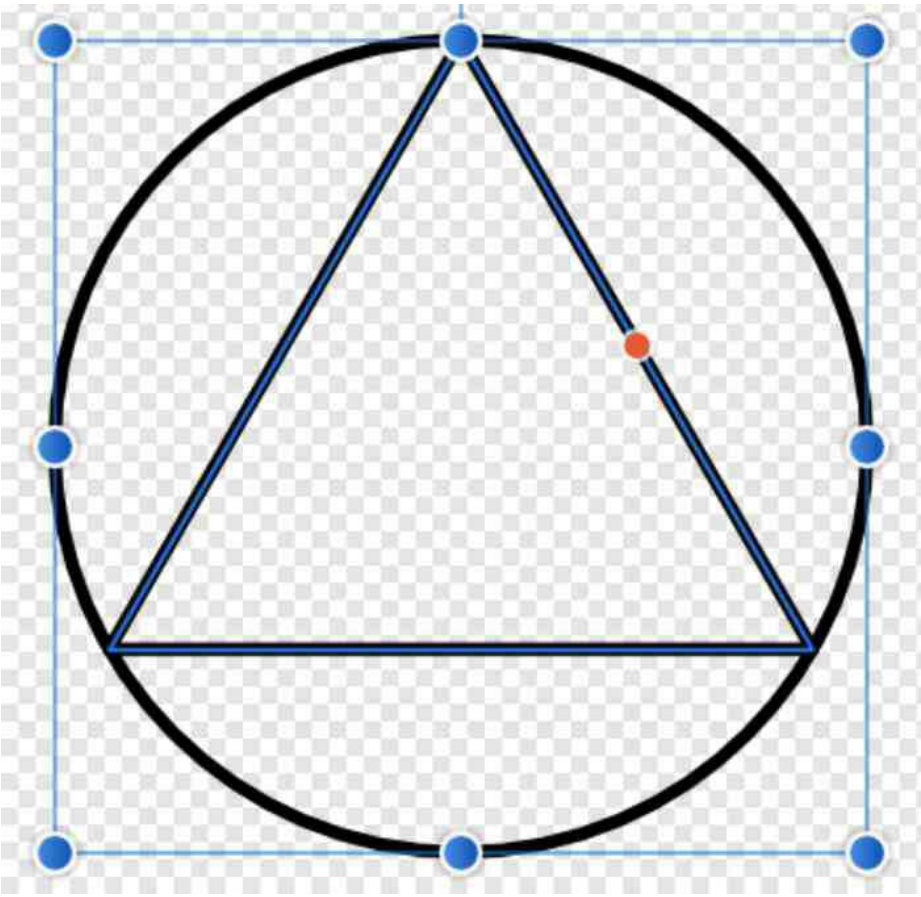
Go to the **Contextual Toolbar** and *set* the **Sides** to **3** (see yellow rectangle).

Note: If you type in the new value of **3**, make sure you press the Return key when done. If you used the Slider, don't worry about pressing the Return key.



Go back to the **center point** in the middle of our circle shape and we're going to repeat the step above when we created the circle shape.

Hold-down **Ctrl**/**Cmd**+**Shift** and use a *click* & *drag motion* to **draw a triangle** from the center of the document so that the three corners touch the circle. Since we have Snapping active, as you draw the triangle outwards, you'll see it wants to snap into place when it gets close to the circle shape.



Next, we’re going to place a circle inside of this triangle. To do this, I’ll select the Ellipse Tool again and then I’ll repeat the same process that we’ve already done.

Do you remember what we must do before we start working with a new shape Tool?

Press the **Esc key** or *click* on the **canvas** to ***deselect*** all active layers in the Layers Panel.

Select the **Ellipse Tool** and then *place* our **cursor** in the center of our document.

Hold-down **Ctrl**/**Cmd**+**Shift** and use a *click* & *drag motion* to **draw a**

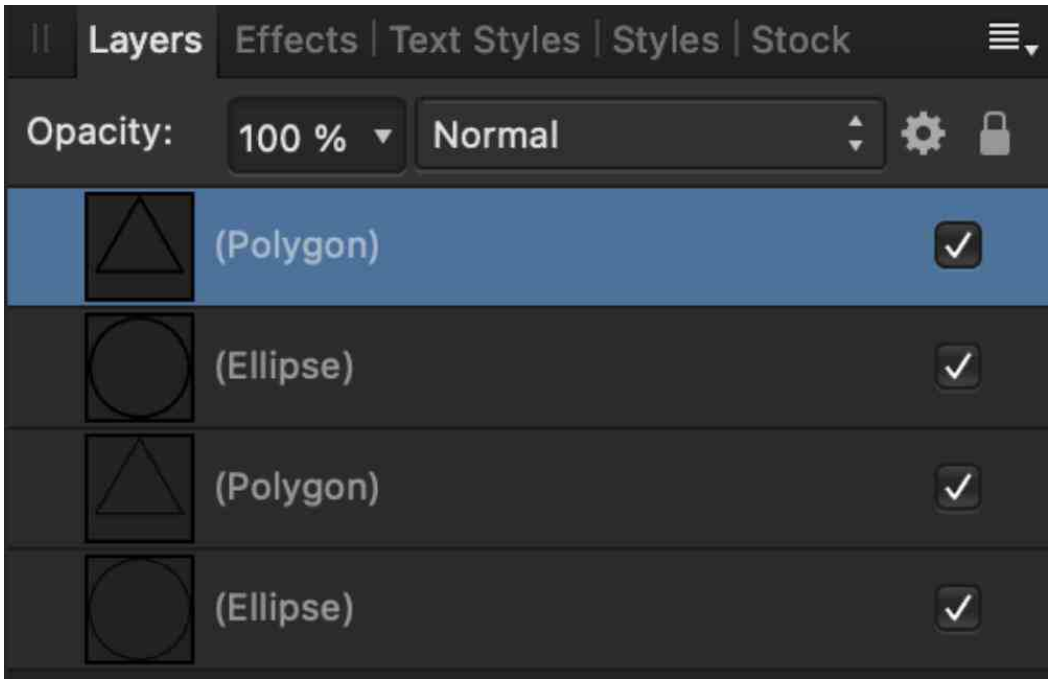
perfect circle from the center of the document so that its sides touch the inner triangle.

Now, we need to place another Polygon triangle inside this circle. Yes, we need to again *press* the **Esc key** or *click* on the **canvas** area first.

Click again on the **Polygon Tool** so it's active.

Hold-down **Ctrl**/**Cmd**+**Shift** as you *click* & *drag* **out from the center** of the previous shape to create the triangle shape. Did you see how it wanted to pop into the circle shape?

This is what the Layers Panel should look like now:

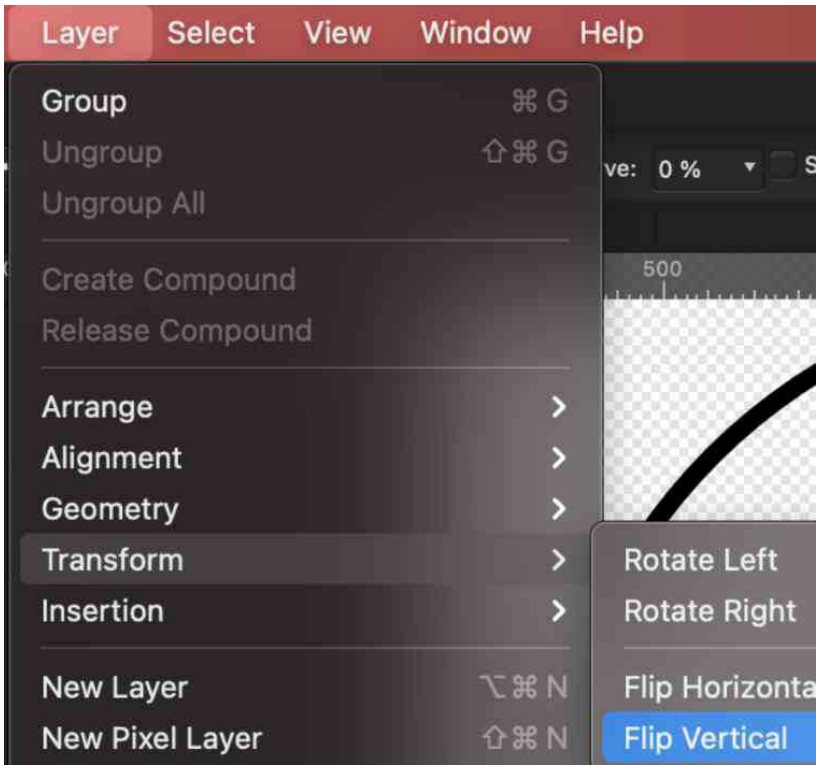


Next, we need to flip the last Polygon-Triangle vertically, so its point is facing downward. As you look at it on your screen, its point is pointing upwards, we want it going in the other direction. We'll show you three ways you can flip a shape.

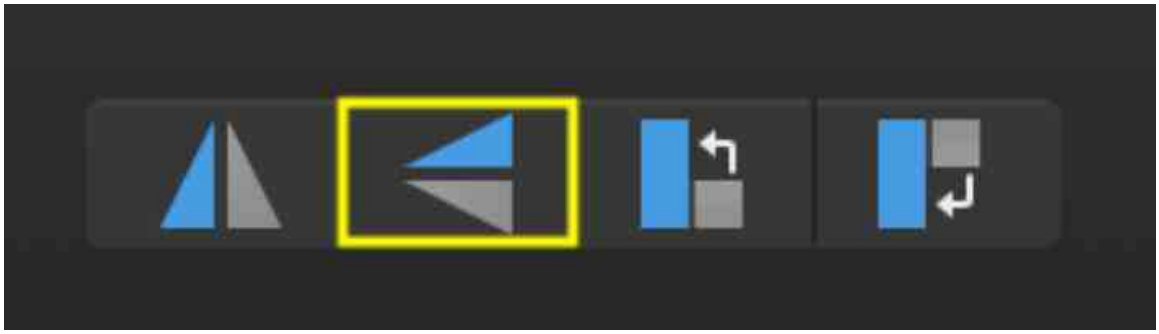
Note: Make sure the top layer is selected before you attempt to flip its shape.

There are three ways we can flip this triangle:

1. *Go* to the **Menu bar - Layer - Transform - Flip Vertical**.

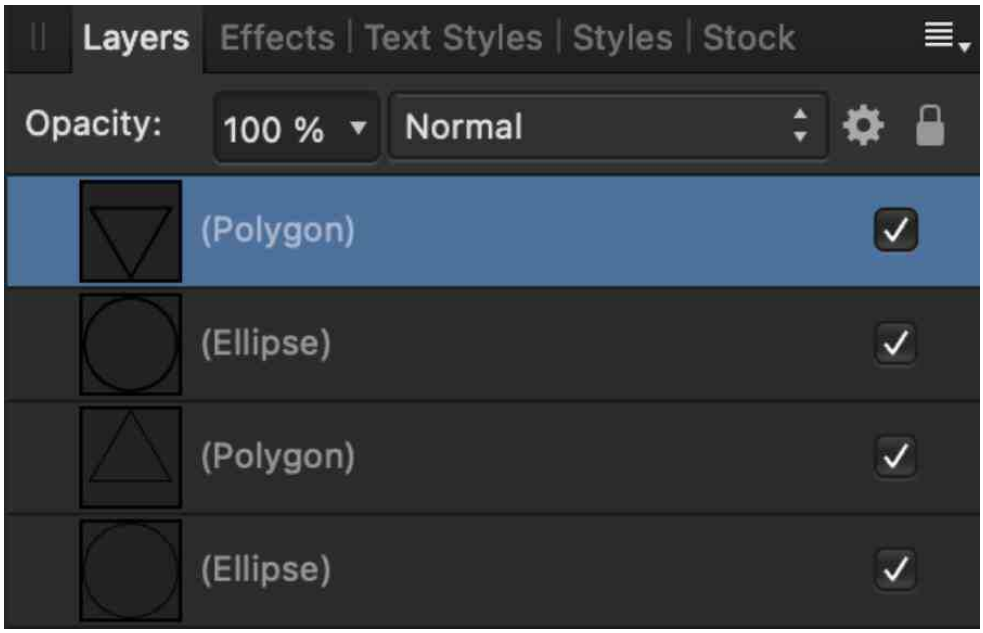


2. *Go* to the **Contextual Toolbar** (middle area) and *click* on the **Flip Vertical** button.



3. Click on the **top white rotational node** and while *holding-down* the **Shift key** *drag* the ***mouse straight down***. Holding down the Shift key when you rotate shapes makes them rotate at 15° turns. It's a more precise way of rotating shapes (there's no image for this).

That's it. Choose one of those methods to flip the inner-most triangle so its point is facing downwards. Instead of showing you the image, check out the preview thumbnail on its layer in the Layers Panel. You can see that the triangle shape is now pointing in the direction we want.



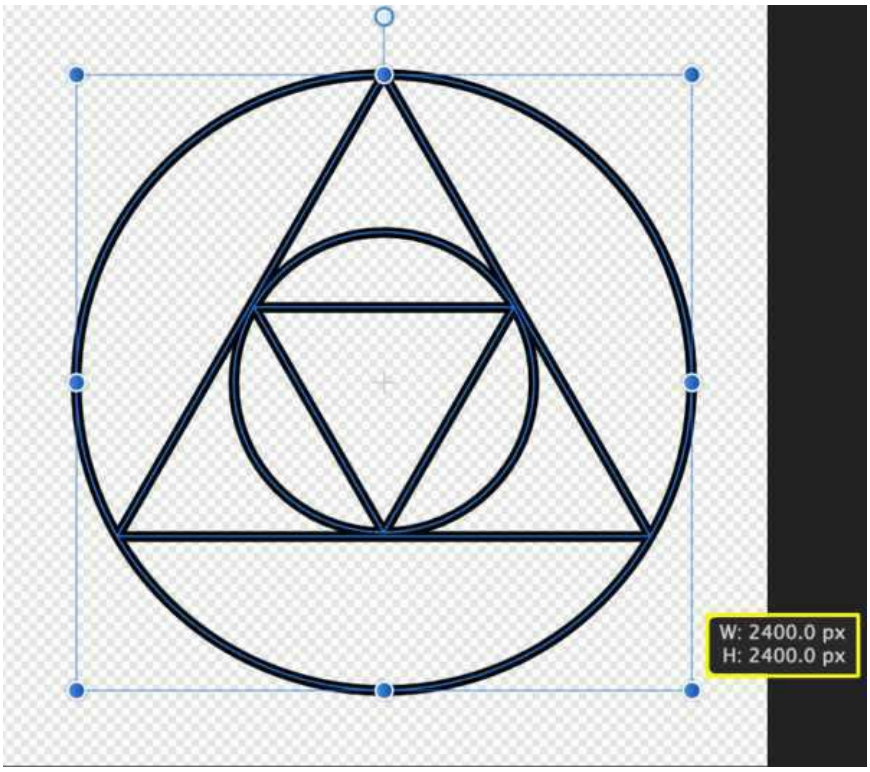
We're almost done. Now, we're going to add a circle within a circle to the three points of the biggest triangle.

To do this, we need to decrease the size of our overall shape, so we have more room to work with inside our document near its borders. This is a simple thing to do.

Go to the **Layers Panel** and *click* on the **top layer** and while *holding-down* the **Shift key** *click* on the **bottom layer**. This will select all of the layers at once.

Click on the **Move Tool** so the whole shape in the document is surrounded by blue nodes.

Hold-down **Ctrl**/**Cmd**+**Shift** as you *click* on **any corner blue node** and *drag* the **shape inwards** towards the center. As you do this, it will uniformly decrease in size and a size window will be seen in the lower right corner of the shape as you do this action (see yellow rectangle for this window). Try to decrease your shape as closely as we've decreased ours to 2400 px/2400 px. This new size will allow us to continue with the lesson and it's taught you how to decrease shapes uniformly from the center of the document. A nice win-win.



Zoom into the **document** so you can work better by *pressing* **Ctrl**/**Cmd +** or *pinching* your **fingers outward** on your mouse pad.

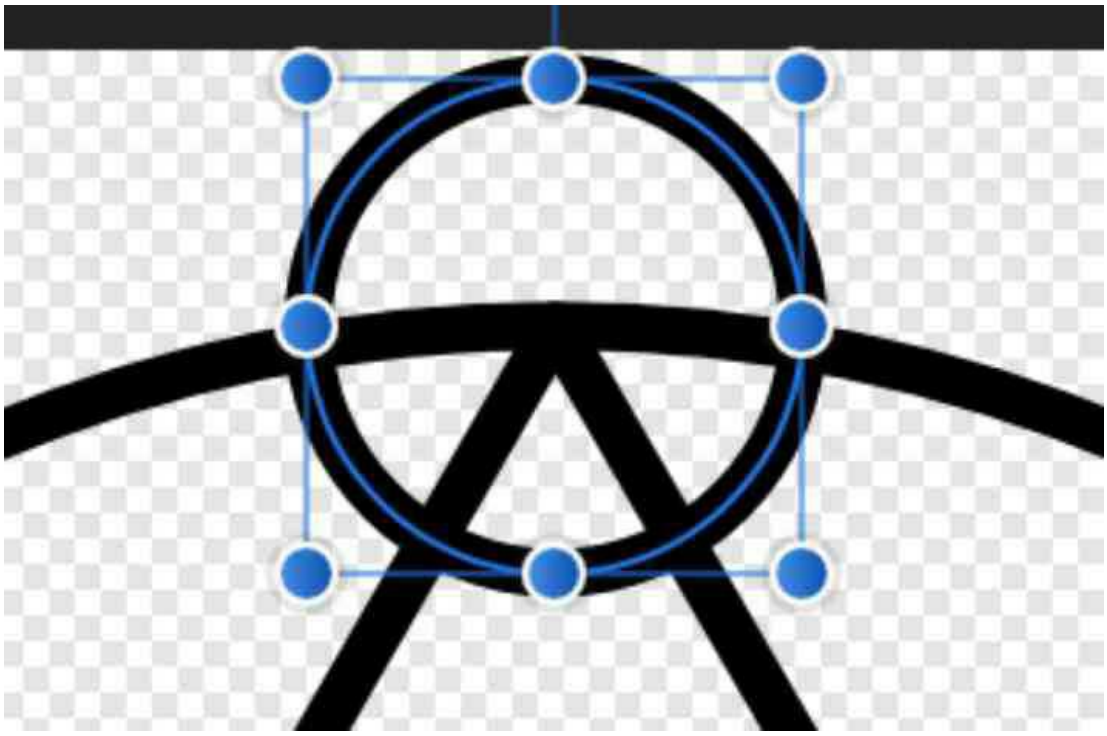
Click on the **canvas** or *press* the **Esc key** to ***deselect*** any active layers.

Select the **Ellipse Tool**.

Place the **cursor** at the apex of the triangle's top.

Hold-down **Ctrl**/**Cmd**+**Shift** and use a *click* & *drag motion* to **draw a circle** from the center of the apex of the triangle shape.

This is what you should draw. Don't worry about being too precise with how large the circle is.



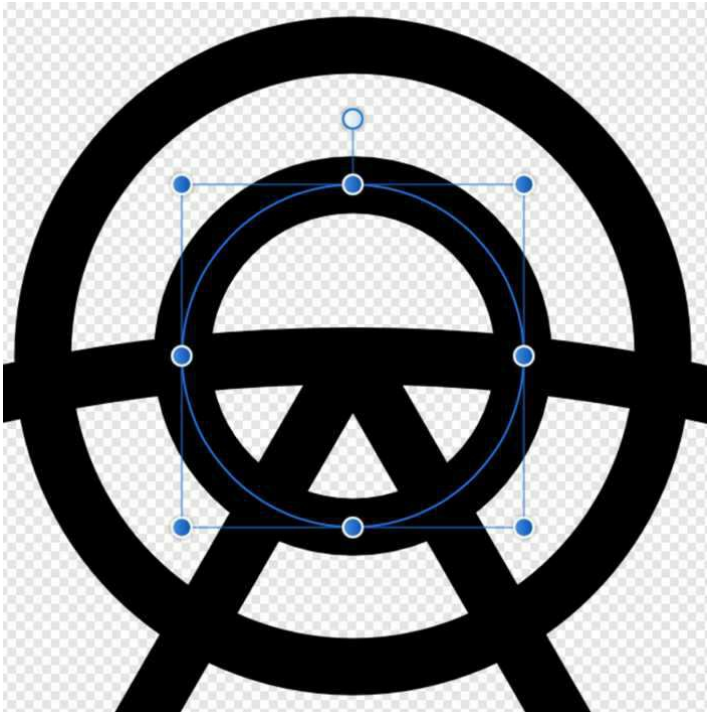
Next, we're going to start to create the same shape, but we'll keep it half the size as the first circle and we're going to give it a fill.

Click on the **canvas** or *press* the **Esc key** to ***deselect*** any active layers.

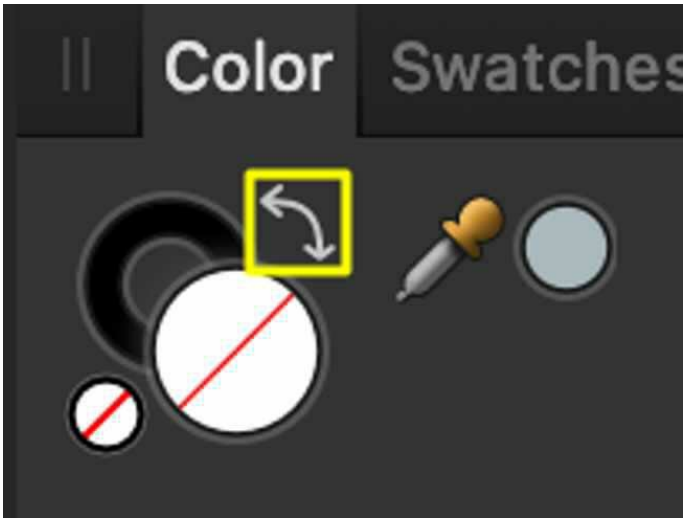
Place the **cursor** back at apex of the triangle.

Hold-down **Ctrl**/**Cmd**+**Shift** and use a *click* & *drag motion* to **draw a circle** from the center of the apex.

Make the **circle** half the size as the previous circle (see our image for reference).



Go to the **Colors Panel** and *click* on the **double-arrow** icon to flip its Stroke and Fill colors (see yellow square for the icon). When you do this, the inner circle will have a black fill and will no longer be transparent.



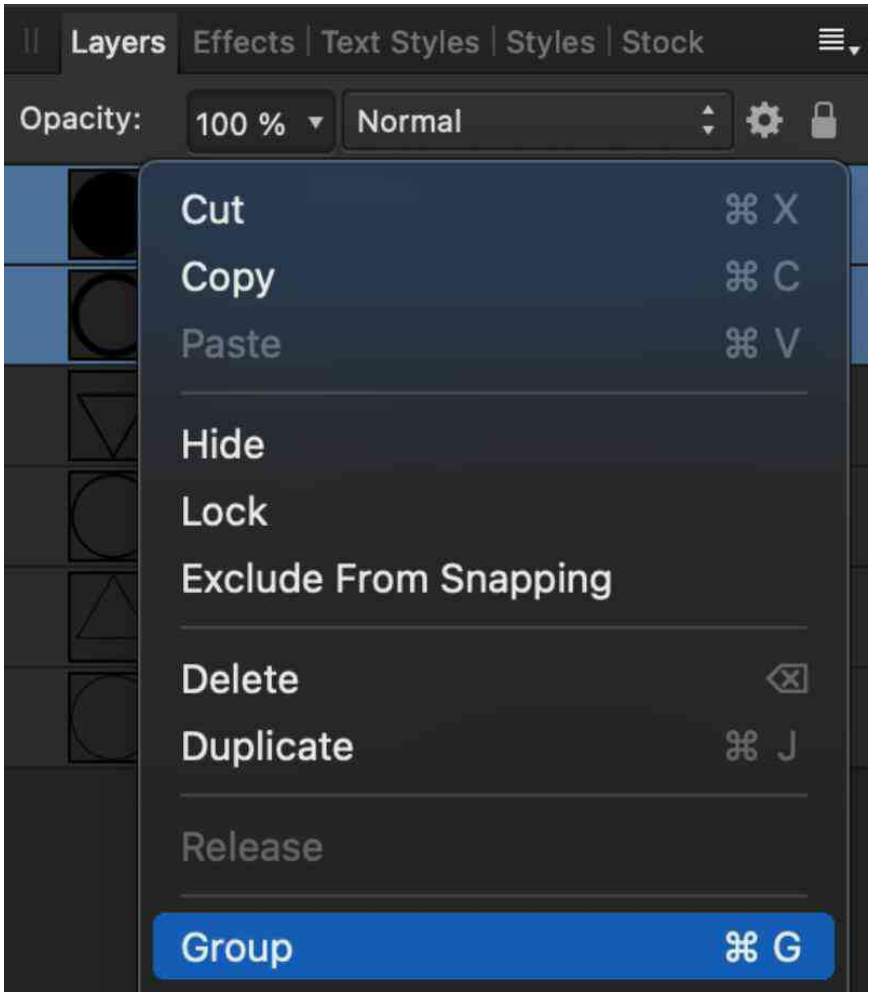
Note: If you think your last circle should be bigger or smaller, just make sure to *hold-down* **Ctrl**/**Cmd**+**Shift** when resizing your circle.

Next, we want to make a group out of the last two layers we made. You should know how to group layers by now, but if not, do this:

Go to the **Layers Panel** and *click* on the **top layer** (it is probably already active).

Hold-down the **Shift key** and *click* on the **next lower layer**.

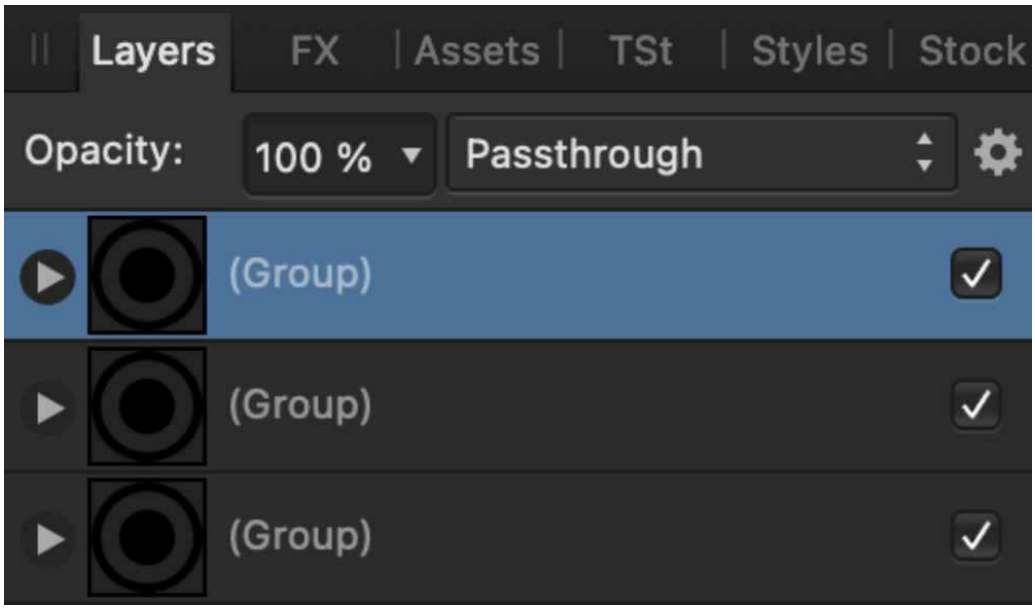
Right-click your **mouse button** and *click* on **Group** (or use the shortcut of **Ctrl**/**Cmd**+**G**).



Note: Notice how the Designer program always shows you the shortcut buttons to press when you look at the menus. See the highlighted Group button in the above image and its shortcut keys on its right side (and above it the other shortcuts, like for Duplicate its Ctrl/Cmd+J).

Now, we want to place this same grouped shapes in the other two corners of our triangle shape. To do this, we'll duplicate the group two times. If you know of a faster way to move a duplicated layer to a new position, try that.

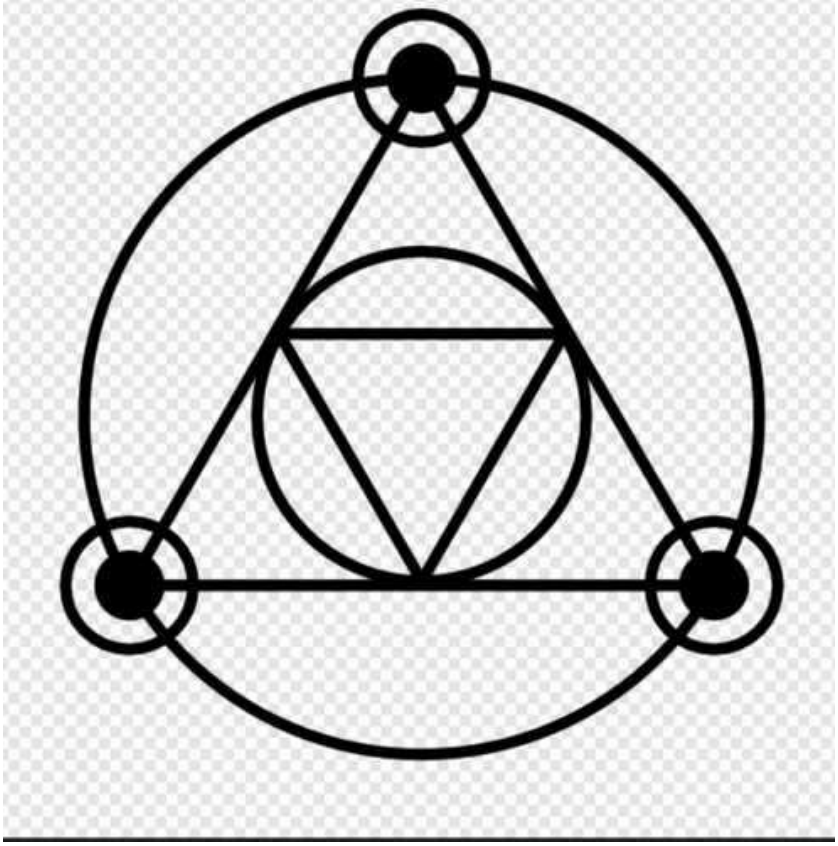
Press **Ctrl**/**Cmd**+**J** ***twice*** so your Layers Panel looks like ours.



Select the **Move Tool** (or *double-click* on the **canvas** area - not the document).

Click & *drag* the **double-circle shapes** into the other two corners.

Your document should look like after the three circle shapes are in their correct spots. We clicked on the canvas so none of the blue nodes are present in this screenshot.



Finally, let's group all of our layers together so our entire shape will be on one layer.

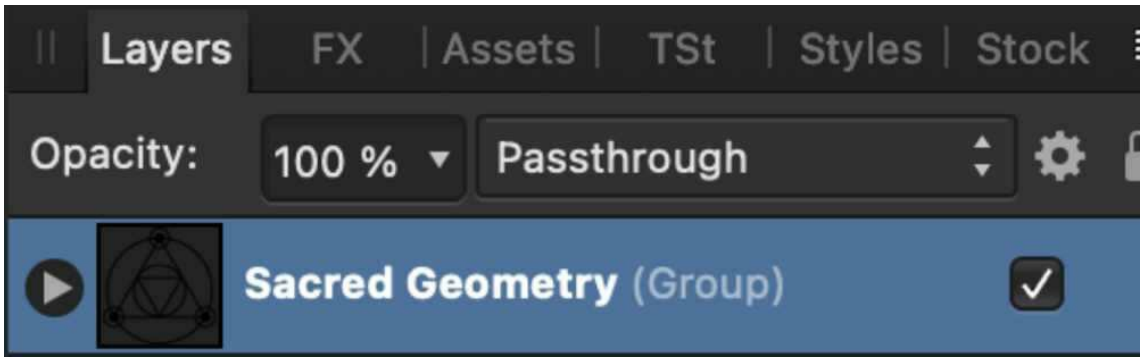
Click on the **top layer** and then white *holding-down* the **Shift key**, *click* on the **bottom layer** so all layers are highlighted in blue.

Press **Ctrl/Cmd+G** to ***group*** these layers (or *right-click* the **mouse button** and *select* **Group**). This final shape can now be used in other documents or in future projects.

Let's also rename this layer "Sacred Geometry".

Double-click on the **group layer** and *type* **Sacred Geometry** and then *press* the **Return key** to set the new name in place.

This is what the Layers Panel should look like now.



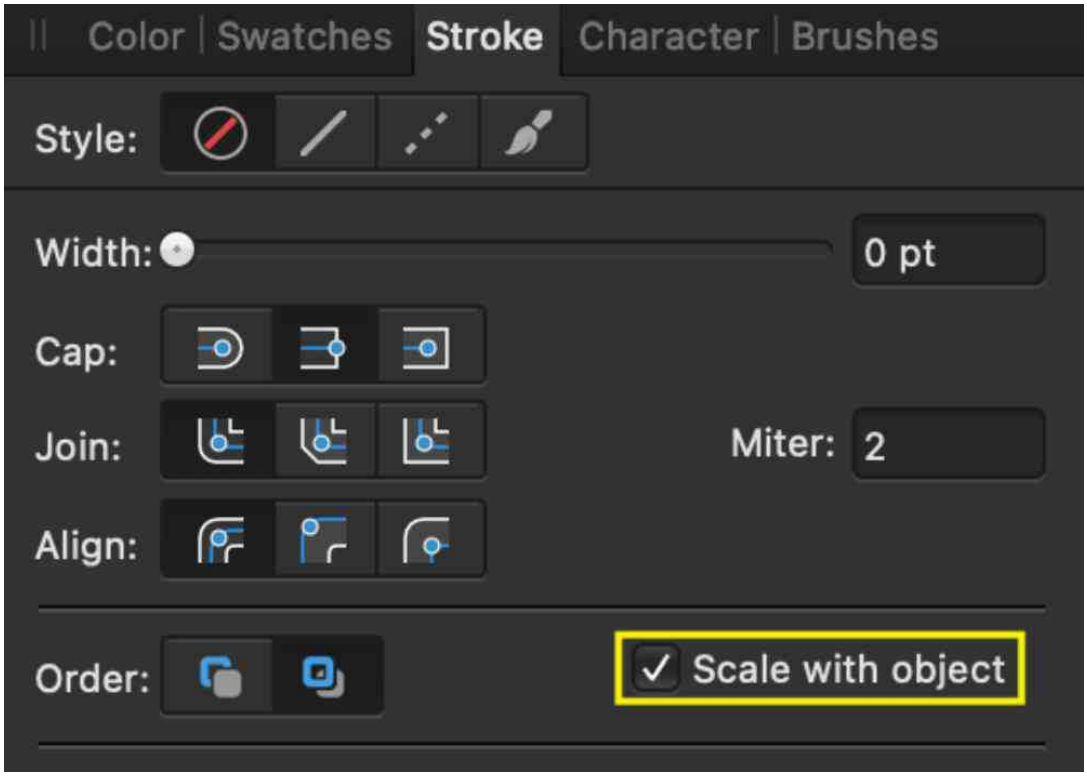
Done. You now know how to create a cool sacred geometry design.

But we're not finished yet. There's one final touch to finish this lesson is make this shape have the ability to be resized (bigger or smaller) and keep its proper form. Currently, if you were to click on one of its corner blue nodes and shrink it, the Stroke would coalesce into a fully black form (see this image below).

Of course, this is not what we want. To fix this, so we can increase of decrease our design with it not being distorted, all we have to do is click on one button.

Go to the **Colors Studio** and *click* on the **Stroke Panel** so its pop-out window appears.

Check the **Scale with object box**. Make sure you see a checkmark in its box before moving on.



Done. Now, as you resize the shape, the stroke will also change sizes.

You now have all the skills you need, to make a beautiful sacred geometry design.

Make sure you save your document as a .PNG file so you can retain the transparency. Saving it with its history is also a good idea if you are so inclined.

Finished. This ends this tutorial.

This is the end of the book. Thank you very much for purchasing The Affinity Designer Manual. Please contact us if we can help you in any way.